On August 1, 2006, Integra acquired Electric Lightwave, which is a fiber-based carrier serving 23 metropolitan areas, including Minneapolis.[70] In discussing its acquisition of Electric Lightwave, Integra stated:

> Through its acquisition of Electric Lightwave in 2006, Integra owns and operates an eight-market, 2,200 route mile (160,000 fiber miles) metropolitan area network, with direct fiber access into over 580 major commercial buildings. Many other competitive local exchange carriers are scrambling to find network alternatives in response to recent FCC rules that increase the cost of leasing network from the Bell companies. Integra, by acquiring Electric Lightwave's metropolitan area network, becomes one of the first to insulate itself from this unpredictable landscape of telecom regulation.[71]

According to GeoTel, Integra/ELI has approximately [redacted] route miles of fiber within the Minneapolis-St. Paul MSA.[72]

Interestingly, on September 26, 2006, Integra announced the results of business "market share" research conducted for Integra by Riley Research Associates during July and August 2006 in seven MSAs, including the Minneapolis-St. Paul MSA. The results of this research (which do not appear to account for the presence of intermodal competition) estimated that Qwest held 42% of the business market while the combination of Comcast, Global Crossing (fka Frontier), Eschelon, AT&T, McLeod, Integra (prior to the ELI acquisition), POPP, Verizon and Sprint held 39% of the business market. All other

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[70] http:/www.cbronline.com/companyprofile.asp?guid=49F7BD2A-4127-4D50-B861-BF3564259926&CType=Background. See Exhibit 3, Page 9.

[71] http://www.integratelecom.com/about/network_and_facilities.asp. See Exhibit 3, Page 11.

[72] GeoTel fiber route data, October 2006.

CLECs held 19% of the business market.[73] While not dispositive, Integra's own data shows a significant level of competition in the business telecom market in the Minneapolis-St. Paul MSA, and Integra is well positioned with its acquisition of facilities-based Electric Lightwave (and in the future, Eschelon) to make even greater inroads into the small business and enterprise business markets in the area.

28. Headquartered in Minneapolis, Eschelon is a major facilities-based CLEC providing services to small and enterprise business customers in a number of markets in the western U.S., including the Minneapolis-St. Paul MSA. As noted above, Integra has announced its intention to purchase Eschelon.

In describing its operations, Eschelon states:

> Eschelon Telecom, Inc. is a facilities-based competitive communications services provider of voice and data services and business telephone systems in 45 markets in the western United States. Headquartered in Minneapolis, Minnesota, the company currently employs approximately 1,400 telecommunications/Internet professionals, serves over 60,000 business customers and has in excess of 570,000 access lines in service throughout its markets in Arizona, California, Colorado, Minnesota, Montana, Nevada, Oregon, Utah and Washington.[74]

Eschelon offers a broad range of voice and data services to small and enterprise business customers, including local exchange service, digital T-1 services, digital PBX trunks,

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[73] http://www.integratelecom.com/about/news/news_releases/2006/2006-09-26_news_release.asp. See Exhibit 3, Page 12. The Integra-sponsored survey appears to base its Qwest and CLEC business market share estimates on the number of customers, whereas TNS estimated Qwest's share of the small and enterprise business markets based on revenues. (See Section I, ¶7 of this declaration.)

[74] http://www.eschelon.com/about_us/section_detail.aspx?itemID=8311&catID=220&SelectCatID=220. See Exhibit 3, Page 15.

long distance service, integrated voice/data services and a wide range of features.[75] Additionally, in late 2005, Eschelon introduced its "Precision Flex-Pak" VoIP service, which is provided over its own managed network. By June 2006, Eschelon reported that its "Precision FlexPak" service was exceeding sales expectations and represented 37 percent of the company's total lines sold.[76] In November 2006, Eschelon announced that its percentage of backhaul facilities carried over company-owned fiber had reached 52 percent, and predicted that this percentage would continue to grow as the company initiated the next phase of its network expansion.[77]

29. Level 3 is an international communications and information services company that has traditionally operated primarily as a major "carriers' carrier," offering wholesale telecom services to other communications providers. However, today Level 3 also offers a wide range of communications services to small and enterprise business customers, including Internet Protocol ("IP") services, broadband transport, collocation services, and patented Softswitch-based managed modem and voice services. Level 3 touts its scalable, cost-effective, state-of-the-art optical network as being "ideal for communications-intensive companies". The company also asserts that "few providers

[75] http://www.eschelon.com/voice/index.aspx and http://www.eschelon.com/internet/index.aspx. See Exhibit 3, Page 17.

[76] http://www.eschelon.com/about_us/section_detail.aspx?itemID=7588&catID=6885&SelectCatID=6885. See Exhibit 3, Page 19.

[77] http://www.eschelon.com/about_us/section_detail.aspx?itemID=8311&catID=220&SelectCatID=220. See Exhibit 3, Page 15.

own the amount of available fiber infrastructure that Level 3 owns" and that as a consequence, "few can claim to be as accommodating of future customer growth."[78]

Level 3 has established a specific marketing organization, the Level 3 Business Markets Group, to focus specifically on serving the small and enterprise business markets—a strategy that has been enhanced through Level 3's January 2007 acquisition of Broadwing Corporation. Broadwing operated as a CLEC serving small and enterprise business customers in a variety of U.S. markets, including the Minneapolis-St. Paul MSA. In discussing its Broadwing acquisition, Level 3 stated:

> The acquisition of Broadwing is consistent with both the Level 3 wholesale market strategy as well as our more recent entry into the enterprise market. We believe the combination of Level 3 and Broadwing will create value for our investors through the elimination of duplicative network and operating costs, the addition of a solid revenue base, and a further strengthening of our financial position. Broadwing has made great strides with national enterprise customers as a result of their strong product portfolio and national sales teams. This creates an exciting opportunity for us to leverage both of these capabilities to accelerate the growth of Level 3's Business Markets Group.[79]

Level 3 has also partnered with Covad to deliver VoIP telecom services to the small and medium business market.[80] This Covad-branded service is now available to any Minneapolis-St. Paul MSA customer with a broadband Internet connection, and represents a direct substitute for Qwest's retail voice services. With its acquisition of

[78] http://www.level3.com/576.html. See Exhibit 3, Page 21.

[79] http://www.level3.com/newsroom/pressreleases/2006/20061017.html. See Exhibit 3, Page 22.

[80] http://www.level3.com/newsroom/pressreleases/2006/20060912a.html. See Exhibit 3, Page 25.

Broadwing, Level 3 now owns and operates a 39,500 mile fiber network,[81] including over [redacted] fiber miles in Qwest wire centers in the Minneapolis-St. Paul MSA.[82]

30. McLeodUSA is a facilities-based CLEC providing a range of services to small and enterprise business customers in nearly 500 cities in 20 states. Based on the map posted to its website, McLeodUSA offers services to the following communities in the Minneapolis-St.Paul MSA: Anoka, Blaine, Bloomington, Buffalo, Burnsville, Coon Rapids, Cottage Grove, Crystal, Eagan, Elk River, Forest Lake, Fridley, Maplewood, Minneapolis, Oak Grove, Plymouth, Shakopee, St. Paul, and Stillwater.[83] McLeodUSA describes itself as a provider of "integrated solutions for:

- Traditional local and long-distance services (including VoIP);
- High-speed broadband Internet access (up to 60 Mbps);
- Data networking solutions (e.g., VPN services, facilities leasing)."[84]

McLeodUSA's current product offerings are the result of a major business strategy shift that was announced by the company in June 2006. At that time, McLeodUSA began re-focusing the company's offerings around dynamic IP-based integrated voice and data broadband solutions for single and multi-location small and enterprise businesses, which it manages over "one of the largest competitive, fiber-dense networks in the nation."[85] In addition to its new focus on IP integrated services, McLeodUSA stated that it was also

[81] http://www.level3.com/about_us/index.html. See Exhibit 3, Page 26.

[82] Source: GeoTel, October 2006.

[83] http://www.mcleodusa.com/CoverageArea.do. See Exhibit 3, Page 28.

[84] http://www.mcleodusa.com/CompanyInformation/CorporateProfile.do. See Exhibit 3, Page 29.

[85] http://www.mcleodusa.com/InvestorRelations/PressRoom.do. Press Release issued June 5, 2006. See Exhibit 3, Page 30.

"rapidly expanding its distribution channels and sales partners to help fuel market growth."[86] In October 2006, McLeodUSA introduced an expanded product suite of wholesale local voice and carrier data offerings, stating that it would leverage its "pervasive fiber-optic network" of 18,000 route miles and 650 central office collocations to provide both traditional and IP-based wholesale services.[87] According to GeoTel, McLeodUSA has approximately [redacted] route miles of fiber within the Minneapolis-St. Paul MSA.[88]

31. POPP.com, which recently changed its name from POPP Telecom Corporation, is a privately owned, facilities-based CLEC serving thousands of business customers in three states, including Minnesota.[89] POPP.com is headquartered in Golden Valley, Minnesota, which is within the Minneapolis-St. Paul MSA.[90] The company offers a full range of voice and data services and Internet access to businesses in the Twin Cities, including local business lines, long distance, DSL, T1s, and Primary Rate Interface ("PRI") trunks.

32. TDS Metrocom is a facilities-based CLEC providing local, long distance and high-speed Internet services to "friends, neighbors and businesses" in communities

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[86] *Id.*

[87] http://www.mcleodusa.com/InvestorRelations/PressRoom.do. Press Release issued October 9, 2006. See Exhibit 3, Page 33.

[88] GeoTel fiber route data, October 2006.

[89] http://www.popp.com/profile.cfm. See Exhibit 3, Page 36.

[90] http://www.popp.com/contact.cfm. See Exhibit 3, Page 37.

throughout five states, including the Minneapolis-St. Paul MSA in Minnesota.[91] TDS Metrocom is a wholly owned subsidiary of Telephone and Data Systems, Inc. ("TDS"), which also owns TDS Telecom, an ILEC serving customers in 30 states.[92] In addition, TDS owns 82 percent of U.S. Cellular, the nation's sixth largest wireless service provider.[93] TDS Metrocom primarily focuses on the small and enterprise business markets, and offers a wide range of telecommunications services including stand-alone business voice service, business local service packages, dedicated high capacity services, digital trunks, ISDN, long distance, dedicated Internet access, etc.[94]

33. XO Communications provides both retail business and wholesale telecommunications services in the Minneapolis-St. Paul MSA. XO describes itself as a "full-service provider of communications services for small and growing businesses, larger enterprises and carriers" that owns "a wealth of local fiber, DSL, fixed wireless, data networking, Internet and long-haul network assets."[95] Minneapolis-St.Paul is among the 75 major U.S. metropolitan markets served by XO, and represents a major network node within XO's 18,000-mile national fiber network.[96,97] XO announced in October 2006 that it had aligned its businesses into two major segments—XO Business Services

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[91] http://www.tdsmetro.com/About.aspx and http://www.tdsmetro.com/SelectArea.aspx. See Exhibit 3, Page 38.

[92] http://www.teldta.com/tds_ourcompanies.html. See Exhibit 3, Page 41.

[93] *Id.*

[94] http://www.tdsmetro.com/Default.aspx. See Exhibit 3, Page 42.

[95] http://www.xo.com/about/ourstory/. See Exhibit 3, Page 43.

[96] http://telephonyonline.com/fttp/marketing/comptel_xo_wholesale_100906/. See Exhibit 3, Page 44.

[97] http://www.xo.com/about/network/maps/complete_normal.html. See Exhibit 3, Page 45.

and XO Carrier Services—to reflect its focus on both retail and wholesale customers.[98] XO provides a wide range of local services for retail and wholesale customers, including basic voice business lines, business trunks, Centrex service, voice messaging, ISDN-PRI, directory assistance, foreign exchange service, long distance services, etc.[99] In addition to its traditional voice services, XO actively promotes its VoIP-based services provided via its XOptions Flex product line.[100] In addition, Nextlink, XO's wireless broadband service division, now offers a wide range of wireless broadband private line services, including DS3, OC-3 and OC-12 services to enterprise and wholesale customers in major markets including Minneapolis. These offerings compete directly with high capacity services offered by Qwest.[101]

34. In the Minneapolis-St. Paul MSA, the CLECs described above are squarely focused on delivering competitive local exchange services to an increasing share of retail customers, while at the same time *reducing their reliance on UNEs purchased from Qwest*. The CLECs are realizing this goal by self-provisioning network facilities (either by wireline or wireless means), purchasing network capacity from other carriers (described later in this declaration), or by purchasing finished services such as Qwest Platform Plus or Qwest Local Services Platform from Qwest via business-to-business contractual arrangements.

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[98] http://telephonyonline.com/fttp/marketing/comptel_xo_wholesale_100906/. See Exhibit 3, Page 44.

[99] http://www.xo.com/products/smallgrowing/voice/local/index.html. See Exhibit 3, Page 46.

[100] http://www.xo.com/products/smallgrowing/integrated/. See Exhibit 3, Page 48.

[101] http://www.nextlink.com/livefiles/ServiceGroups/1/Service_Providers.pdf. See Exhibit 3, Page 49.

IV. SPECIAL ACCESS.

35. Special Access service can be utilized as a substitute for unbundled network elements. In fact, many landline-based competitors are purchasing Special Access services purchased from Qwest today in order to serve customers in the Minneapolis-St. Paul MSA. As of December 2006, competitors purchased over [redacted] Voice Grade Equivalent ("VGE") lines in the Minneapolis-St. Paul MSA.[102] Of these VGEs, almost [redacted] are based on DS1 Special Access, over [redacted] are based on DS3 Special Access, and the remainder are based on OCn and other Special Access services. While Qwest does not have direct knowledge of the services CLECs provide to their customers via Special Access services, the fact that a significant proportion of Special Access services sold by Qwest to CLECs in the Minneapolis-St. Paul MSA are at a DS1 and above level suggests they are being utilized to serve enterprise customers, who typically have the need for a large number of access lines and/or telecommunications bandwidth capacity. The number of Voice Grade Equivalent circuits provided by competitors using Special Access services in the Minneapolis-St. Paul MSA exceeds the number of VGE circuits provided by CLECs using unbundled network elements, Qwest Platform Plus and resale combined. In addition, revenues for Qwest Special Access provided to competitors in the Minneapolis-St. Paul MSA for the month of August, 2006,

[102] VGEs represent equivalent voice channels; for example, a DS1 is equivalent to 24 voice channels, a DS3 is equivalent to 672 voice channels, an OC3 is equivalent to 2016 voice channels, and an OC12 is equivalent to 8064 voice channels. Special Access data is drawn from Qwest's wholesale tracking systems and reflects data vintage December 2006.

were over [redacted]. It is clear that carriers are utilizing Special Access services very broadly in providing telecom services in the Minneapolis-St. Paul MSA.

36. It is also worth noting that, while Special Access is provided by Qwest throughout the Minneapolis-St. Paul MSA, competitive fiber has also been placed in most of these wire centers, as discussed in the following section of our declaration. This fiber can be used as an alternative to the purchase of Qwest Special Access services. In fact, almost [redacted] of the Special Access VGEs in the Minneapolis-St. Paul MSA are in wire centers that also have competitive fiber in place.

V. FIBER-BASED COMPETITORS.

37. A significant amount of fiber optic cable has been placed by competitive service providers in the Minneapolis-St. Paul MSA that can be used to bypass Qwest's network. According to GeoTel,[103] approximately [redacted] miles of fiber (excluding fiber owned by Qwest and Qwest's affiliates) have been placed in the Minneapolis-St. Paul MSA, and this fiber is owned by approximately 45 unaffiliated entities.[104] Based on the 2006 GeoTel data, at least one fiber-based competitor has facilities in [redacted] of

[103] "GeoTel Communications, Inc. is the leading provider of telecommunications infrastructure data in a geographic information system (GIS). GeoTel's unique business strategy implements and converges the mapping of telecommunications fiber and other telecommunications infrastructure with GIS technologies. These two items integrated into one digital data set gives leverage and insight into the competitive metropolitan fiber optic landscape across America." http://www.cmcstore.com/productcart/pc/viewCat_h.asp?idCategory=66.

[104] GeoTel continually works to update its data regarding fiber-based competitors and provides updated data approximately every six months. However, GeoTel does not possess complete data regarding each fiber-based competitor, and the data reported above is therefore likely understated. GeoTel data underlying the numbers above was provided to Qwest in October 2006.

Qwest's wire centers in the Minneapolis-St. Paul MSA, and these wire centers contain over [redacted] of Qwest's retail residential lines and over [redacted] of Qwest's retail business lines in the MSA. In addition, non-Qwest fiber is now being used to serve over [redacted] buildings in the Minneapolis-St. Paul MSA.[105]

38. According to the GeoTel data, some of the most significant alternative telecom fiber providers in the Minneapolis-St. Paul MSA include [redacted].[106] Additionally, a public-private partnership known as Connecting Minnesota owns over [redacted] route miles of fiber in the Minneapolis-St. Paul MSA[107], and the Minnesota Department of Administration, which is a party to this partnership, owns an additional [redacted] route miles of fiber within the MSA.[108],[109] According to a summary of this partnership posted to the website of the national Council for Public-Private Partnerships, Connecting Minnesota assigns 20% of its network capacity to state and local governments telecommunications users, while the remaining 80% of network capacity is "available for lease to telephone companies, long-distance

[105] *Source: GeoTel, October 2006.*

[106] *Id.*

[107] http://ncppp.org/cases/minnesota.shtml. See Exhibit 4, Page 1.

[108] *Id.*

[109] Source: GeoTel, October 2006.

carriers, Internet service providers and other service providers."[110] Exhibit 4, confidential page 2, shows the known fiber routes for 45 known entities with competitive fiber facilities in the Minneapolis-St. Paul MSA. These fiber facilities can be used by Qwest's competitors to provide services that directly compete with a number of Qwest mass market and enterprise services, such as local exchange service, private line service, ISDN, local area networks, frame relay service, long distance services, etc. In this case, competitive services can be provided *without using the Qwest network.*

VI. WIRELESS SERVICE COMPETITION.

39. Wireless phones are now widely accepted by business and residential customers alike for voice telephony. In addition, to bring additional functionality to their services and to attract new customers, wireless providers are now augmenting their services with data applications such as dial-up wireless Internet access, text messaging and image transmission. The customer shift toward wireless substitution in Minnesota can be observed by reviewing the FCC's most recent Local Telephone Competition Report.[111] The FCC's data shows that total incumbent and CLEC wirelines in Minnesota decreased from 2.935 million as of June 2000 to 2.273 million as of June 2006.[112] In contrast, wireless subscriber counts in Minnesota grew from 1.596 million to 3.542 million

[110] *Id.*

[111] *Local Telephone Competition: Status as of June 30, 2006*, Industry Analysis and Technology Division, Wireline Competition Bureau, January 2007.

[112] *Id.*, Tables 9 and 10. This decrease occurred despite the fact that CLEC lines increased from 230,789 in June 2000 to 675,623 in June 2006.

between June 2000 and June 2006—an increase of 1.946 million, or 122%. The number of wireless subscribers in Minnesota now exceeds the combined number of ILEC and CLEC wireline access by a wide margin.[113] Clearly, wireless services are outpacing traditional wireline services in fulfilling many Minnesotans' telecommunications needs.

40. In its most recent Commercial Mobile Radio Service ("CMRS") competition report,[114] the FCC provides data regarding the percentage of households that have "cut the cord" (i.e., have disconnected wireline telephone service and now rely exclusively on wireless service for their voice telecommunications needs). The FCC states:

> Wireless substitution has grown significantly in recent years. According to a 2005 National Health Interview Survey (NHIS), 7.8 percent of adults lived in households with only wireless phones in the second half of 2005, up from 5.5 percent in the first half of 2004 and 3.5 percent in the first half of 2003.[115]

The FCC's data clearly show a significant increase in the proportion of wireless subscribers who have "cut the cord," and there is no sign that this trend is abating, but rather, it is continuing its inexorable upward pace—driven by the omnipresence, increasing functionality and affordable prices of wireless telephones. In fact, the National Center for Health Statistics—the research source for the data relied upon by the FCC to assess wireless substitution—recently released an updated report showing that the proportion of households that have "cut the cord" has increased to 9.6% as of June 2006,

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[113] *Id.*, Table 14.

[114] Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, Tenth Report, September 29, 2006.

[115] *Id.* Page 89, ¶205.

continuing the steady upward trend observed since 2003.[116] However, this data tells only part of the story. In many instances, subscribers remove a second landline in favor of wireless service and/or shift a significant amount of telephone usage to wireless service. In each of these instances, demand for Qwest wireline telephone service is reduced, even though the customers have not yet disconnected their wireline telephone service entirely. The FCC states:

> Even when not "cutting the cord" completely, consumers appear increasingly to choose wireless service over traditional wireline service, particularly for certain uses. For example, according to one analyst, customers in nearly a third of American households make at least half their long distance calls at home from their cell phones rather than from their landlines. In the early 2006 survey of cellphone users described above, an additional 42 percent of cellphone users said that they also had a landline phone, but that they used their cellphones "most."[117]

This data provides undeniable evidence showing that wireless service subscribers are using wireless service as a direct substitute for traditional wireline telephone services.

41. Other independent experts that have studied the phenomenon of wireless substitution echo the FCC's conclusions. For example, the Yankee Group reports that "51% of local calls and 68% of long distance calls have been replaced by wireless."[118] In October 2006, Telephia released results of its primary research conducted during Second Quarter 2006 showing the rate of wireless substitution in large metropolitan areas in the United States, including the Minneapolis-St. Paul metropolitan area. Telephia found that

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[116] http://www.cdc.gov/nchs/products/pubs/pubd/hestats/wireless2006/wireless2006.htm. See Exhibit 5, Page 1.

[117] *Id.*, Page 90, ¶206.

[118] *2006 U.S. Technologically Advanced Family Survey*, The Yankee Group, September 2006.

15.2% of the survey respondents in the Minneapolis-St. Paul area reported that they had cut the cord—a percentage that translates to over 148,000 Minneapolis-St. Paul area households.[119] In short, there is no evidence that the rate of substitution of wireless service for traditional wireline service is diminishing. Rather, all evidence demonstrates that such substitution will continue to increase at a robust rate.

42. Competitive wireless service is now available to the vast majority of customers in Qwest's Minneapolis-St. Paul MSA service territory from at least one (and usually several) of the major wireless carriers, including Sprint PCS, T-Mobile, Verizon, and AT&T (f/k/a Cingular).[120] Exhibit 5, page 7, displays the wireless coverage areas for the carriers serving the Minneapolis-St. Paul MSA, based on a conservative mapping of a five mile[121] coverage footprint around each known cellular tower.[122] Wireless services now provide functionality nearly identical to wireline service from the perspective that both provide switched voice communication capability, access to directory assistance, access to popular calling features (such as call waiting, three-way calling, caller I.D., voice messaging, etc.), access to operator services, number portability (e.g., customers

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[119] http://www.telephia.com/html/documents/TotalCommunications_000.pdf, October 18, 2006. See Exhibit 5, Page 4.

[120] Other smaller wireless carriers, such as Alltel, also serve the Minneapolis-St. Paul MSA (see http://www.alltel.com/personal/wireless/plans/coverage_maps/MIN.gif.). See Exhibit 5, Page 6.

[121] Depending on local conditions, cellular reception is viable at distances as great as 30 miles from the cellular tower (source: http://en.wikipedia.org/wiki/Cell_site.) Mapping based on 2006 data obtained by research firm GeoResults. See Exhibit 5, Page 7.

[122] Braham is the only wire center that appears to be beyond the 5-mile radius any of the major carriers' towers; however, coverage information provided by these wireless carriers on their websites indicates that most, if not all, of them do provide services in the Braham community.

may now port a wireline telephone number to a wireless carrier and vice versa) and access to E911 service.

43. Wireless broadband ("WiFi") service represents another form of radio-based competition that is being actively deployed in many communities within Qwest's Minneapolis-St. Paul MSA service territory.[123] According to JiWire, which maintains a comprehensive directory of Wi-Fi hotspots, WiFi service is now publicly available in well over 100 locations within the Minneapolis-St. Paul MSA, including locations in Anoka, Blaine, Bloomington, Burnsville, Cambridge, Coon Rapids, Crystal, Eagan, Eden Prairie, Elk River, Excelsior, Golden Valley, Hopkins, Maplewood, Minneapolis, Navarre, North Branch, Plymouth, Shakopee, St. Paul, Stillwater, Wayzata and White Bear Lake.[124] In any of these locations, users can utilize a WiFi connection to access the internet and use VoIP services to make and receive telephone calls without reliance on Qwest's local network. In other words, WiFi services represent yet another physical "communications pipe" into homes and businesses in the Minneapolis-St. Paul MSA. This technology continues to be aggressively deployed. For example, in September 2006, the Minneapolis City Council awarded a 10-year contract to Minnesota-based US Internet to build a Wi-Fi network that will "blanket" Minneapolis.[125] The system will provide service for residents at a $20-per-month fee cap for individuals and a $30-per-month fee cap for businesses. According to the program manager for this wireless

[123] WiFi is a precursor to WiMAX service, which will have a much greater coverage area around each transmitter.

[124] http://www.wififreespot.com/minn.html. See Exhibit 5, Page 8.

[125] http://www.mndaily.com/articles/2006/09/06/68815. See Exhibit 5, Page 35.

initiative, US Internet's service "makes a viable alternative to high-speed cable or DSL service for some computer users," as it is "bi-directional, it is less cost and it is mobile."[126]

44. The Minneapolis-St. Paul area is home to many wireless innovators. For example, ADC, with its world headquarters and one of its four primary U.S. operations facilities located in Minneapolis, now offers its network infrastructure products and services to telecommunications service providers, wireless operators, broadcast operators and Fortune 500 enterprises throughout the world.[127] In October 2006, ADC announced that it would be featuring two new WiMAX products at the WiMAX World USA Conference & Exhibition: The Digivance WMX 3000 Base Station and the Digivance WMX 300 subscriber unit. According to ADC, the Digivance WMX 3000 base station "is a stackable, carrier-class platform from which wireless operators can launch premium voice, multimedia and data services," while the Digivance WMX 300 Subscriber Unit "offers a broad range of functions required by medium-to-large businesses and enterprises while supporting high-speed service to hundreds of simultaneously connected users."[128] Further, ADC states that:

> With its superior price/performance characteristics, WiMAX is gaining momentum as an alternative technology for wireless broadband access. As carriers look for ways to offer mobile and fixed voice, video and data over the same infrastructure, our Digivance WMX product portfolio

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[126] http://www.minnesota.publicradio.org/display/web/2006/09/05/mpls_wifi/. See Exhibit 5, Page 37.

[127] http://www.adc.com/aboutadc/companyoverview/. See Exhibit 5, Page 39.

[128] http://www.adc.com/investorrelations/newsandcommunications/newsreleases/show.jsp?RELEASEID=213906. See Exhibit 5, Page 41.

> provides powerful solutions that can help them implement their convergence strategies efficiently and economically.[129]

These two new offerings from ADC are designed to provide an alternative broadband access solution for carriers and enterprise business customers that will serve as a facilities-based substitute for Qwest business telecom services.

45. Qwest does not maintain that wireless service is viewed by every customer in the Minneapolis-St. Paul MSA as a complete substitute for traditional wireline service. A certain number of customers will never switch from wireline service to wireless service no matter how attractive wireless service becomes. However, it is clear that when current facts regarding functionality (for voice as well as data/internet applications), price and convenience are examined, wireless service now represents a viable and direct substitute for Qwest's wireline services for many Minnesotans. It is equally clear that wireless substitution is occurring today, and that the rate of such substitution will continue to increase. Wireless competition continues to grow in intensity and now represents significant price constraining competition in the Minnesota telecom market.

VII. VOIP COMPETITION.

46. VoIP service, which is typically offered as a package that includes unlimited local and long distance service plus an array of calling features, is now readily available from a broad range of providers to any residence or business customer in the Minneapolis-St.

[129] *Id.*

Paul MSA that has broadband internet access.[130] As a preliminary matter, some parties contend that VoIP service is significantly more expensive than traditional landline service because a broadband connection is required. However, this precept incorrectly implies that a customer purchases broadband service solely to facilitate VoIP. In fact, most customers purchase broadband services primarily for internet access and entertainment purposes, not simply to facilitate VoIP. For these customers, there is no incremental cost for broadband when they elect to add VoIP telephone service via the preexisting broadband internet connection, and the cost of broadband is therefore not a factor in their VoIP purchase decision.

47. According to the FCC, broadband access lines in Minnesota have grown from 62,983 in June 2000 to 1,057,576 in June 2006—an increase of almost 1,580%.[131] In fact, in the first six months of 2006 alone, broadband access lines in Minnesota increased by more than 23%.[132] As of June 2006, approximately 49% of the broadband access lines in Minnesota were served by cable modem. The FCC found that "more than 99% of the country's population lives in the 99% of zip codes where a provider reports having at least one high-speed service subscriber,"[133] and that 98% of the zip codes in Minnesota

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[130] Broadband internet access is now available from a number of sources, including cable modem service, digital subscriber line, wireless broadband and satellite.

[131] *High Speed Services for Internet Access: Status as of June 30, 2006*, Industry Analysis and Technology Division, Wireline Competition Bureau, January 2007, Table 10.

[132] *Id.*

[133] *Id.*, Page 4.

have at least one broadband service provider available as of June 2006.[134] Competitive broadband services are now widely available from multiple providers in the Minneapolis-St. Paul MSA, and have been embraced by a rapidly increasing number of customers. Each broadband customer represents a potential VoIP subscriber.

48. Currently, there are at least 60 VoIP providers serving the Minneapolis-St. Paul MSA, including Verizon, AT&T, Vonage, BroadVoice, JoiPhone, Packet8, SunRocket, VelocityTel, SageVone, ViaTalk and many others. Some of these providers, such as Vonage, Packet8, and SageVone offer service options for both the residential and business markets, while others, such as NetZeroVoice and SunRocket, focus primarily on the residential market.[135] Vonage, which is probably the most recognized independent residential VoIP provider, recently announced that in just over two years its customer base has rapidly grown to over 2 million subscribers in the U.S.[136] Since VoIP calls don't rely on Qwest's switched network and calls transported via non-Qwest broadband facilities don't rely on Qwest's local loop network, the rapid customer VoIP adoption rate represents an increasingly significant form of network bypass competition.

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[134] *Id.*, Table 17.

[135] http://www.voipreview.org/service.all2.aspx?provider=0&Country=0&Area_Code=612&serviceType=1&sort_exp=ProviderName%20asc. See Exhibit 6, Page 1

[136] http://pr.vonage.com/releasedetail.cfm?ReleaseID=209928. See Exhibit 6, Page 16.

49. Cross Telecom is a Bloomington, Minnesota-based VoIP provider that focuses solely on the business market.[137] Cross provides "a complete portfolio of voice, data, IP telephony, wireless, security and professional services solutions" and offers a "complete end-to-end integration of converged technologies."[138] Cross offers its VoIP solutions to small, medium-sized and enterprise businesses.[139] In marketing itself to potential enterprise business customers, Cross states:

> In today's demanding economy, enterprise businesses are under constant pressure to perform at their highest production and service levels in order to stay ahead of the competition . . . Key to that never-ending struggle is leveraging the right communications technology. The answer is convergence – IP Telephony has truly redefined how you do business successfully in today's markets . . . As an industry leader in the field of IP Telephony, Cross has both the experienced resources and knowledgeable experts on board to deliver innovative advanced technology for enterprise businesses. Serving top Fortune 500 companies nationwide, Cross understands what it takes to deliver the superior communications you need to move your business forward.[140]

50. SimpleSignal is a full-service business VoIP provider[141] with services available in the Minneapolis-St. Paul MSA. Simple Signal,describes itself as follows:

> SimpleSignal is a facilities-based complete network provider of business VoIP. The company's enterprise-grade service is designed specifically for small to medium sized businesses with four to 100 phones, combining voice and data, hosted PBX, long distance and conferencing into one powerful, cost effective communications solution. SimpleSignal delivers more capabilities than on-premise PBX systems, with greater flexibility, simplicity, and personalized service. Now a business of any size can

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[137] http://www.crosstelecom.com/aboutUs/Index.asp. See Exhibit 6, Page 17.

[138] *Id.*

[139] http://www.crosstelecom.com/voiceSolutions/index.asp. See Exhibit 6, Page 18.

[140] http://www.crosstelecom.com/voiceSolutions/enterpriseSolutions.asp. See Exhibit 6, Page 19.

[141] http://www.simplesignal.com/. See Exhibit 6, Page 20.

> leverage the power of advanced IP communications technology, improving business productivity, while significantly reducing overall telecom costs.[142]

51. Access Point, Inc., another provider of business VoIP service in the Minneapolis-St. Paul MSA, describes VoIP as "the next level in business communications."[143] Access Point describes the advantages of VoIP:

> VoIP can answer challenges for businesses of all sizes. It offers a wealth of features, ease of use, and scalability that other solutions can't touch. Best of all, you can make the switch with a nominal entry cost and a compelling ROI.[144]

According to Access Point, its VoicePoint family of VoIP products offers "a VoIP solution that allows you to replace your traditional phone service, but keep your existing telephone equipment and system."[145]

Cross Telecom, SimpleSignal and Access Point are just three examples of the many VoIP providers that are aggressively competing with Qwest for small and large business customers in the Minneapolis-St. Paul MSA.

52. While VoIP providers such as Vonage are currently reporting impressive subscriber totals, industry experts forecast exponential VoIP growth in the future. For example, Frost and Sullivan found that VoIP market revenue totaled $295.1 million in 2004, and they expect revenues to reach $4.1 *billion* in 2010—*a growth rate of over*

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[142] http://www.simplesignal.com/press-releases.html. See Exhibit 6, Page 21.

[143] http://www.accesspointinc.com/voicepoint.htm. See Exhibit 6, Page 28.

[144] *Id.*

[145] http://www.accesspointinc.com/voicepoint_service.htm. See Exhibit 6, Page 29.

1,200%.[146] As noted earlier, the broadband connections that enable VoIP service have increased significantly to date, and that growth is expected to continue. The Yankee Group found that roughly 44% of all U. S. households now subscribe to broadband internet access service, and that proportion is expected to increase to over 58% by 2010.[147]

With respect to VoIP in the business markets, Infonetics Research, a major research firm specializing in data networking and telecommunications issues, released a study in May 2006 that found:

- 36% of large, 23% of medium and 14% of small North American organizations interviewed were already using VoIP products and services in 2005.
- Almost half of small and two-thirds of large organizations in North America will be using VoIP products and services by 2010.[148]

Thus, leading industry analysts predict seismic changes in the structure of the competitive mass market and enterprise telecom markets in the U.S., with a significant shift away from traditional wireline telephone services and toward intermodal services such as VoIP.

53. In the past, a lack of reliable access to 911 emergency service providers was often mentioned as a reason not to consider VoIP services as a viable direct substitute for traditional wireline service. However, this issue has been largely resolved with regard to

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[146] Real World Network, Trend and Forecasts, North American Residential VoIP Market to Increase Growth, July 19, 2005. See Exhibit 6, Page 30.

[147] *2006 U.S. Consumer Fixed Line Forecast*, The Yankee Group, January, 2007.

[148] http://www.infonetics.com/resources/upna06.ipv.nr.shtml. See Exhibit 6, Page 32.

VoIP customers at fixed locations. The primary remaining VoIP E911 issue currently being addressed by the industry is the problem of "nomadic" E911, involving instances where customers transport their VoIP phone equipment to a location other than the location at which the equipment is registered and attempt to place an E911 call from the remote location.[149] Unless the VoIP provider is notified that the customer has changed locations, the E911 call will show the name and address of the location at which the VoIP equipment was originally registered. For example, if customer John Smith registers his VoIP equipment at 123 Main Street in Minneapolis, but subsequently takes his VoIP equipment with him on a business trip to Chicago where he places an E911 call without notifying his VoIP service provider of the new location, the E911 operator will recognize his call as originating at 123 Main Street in Minneapolis. However, if the customer is not "nomadic" and simply uses his or her VoIP equipment at a fixed location as a landline phone replacement (and has properly notified the VoIP provider of the address of the fixed location), 911 calls from that fixed location are recognized by the E911 operator as originating from the location at which the VoIP service was initially registered.

In an article in USA Today, AT&T discussed a solution it has devised to address the problem of nomadic VoIP:

> AT&T's nomadic solution, called Heartbeat, uses its internet network to track the location of users. Here's how it works: when VoIP customers power down, AT&T's network will automatically suspend VoIP service. Once the phone adapter is plugged back in, AT&T will ask the user to verify his or her location. For customers who indicate they haven't

[149] The FCC ordered all VoIP providers to make their VoIP services fully 911-capable by November 28, 2005, particularly in instances where the customer is "nomadic."

> moved, service will be instantly restored. If they have moved, they'll be directed to an 800 number or web page to register the new location.[150]

Again, so long as the VoIP subscriber properly registers his or her location with the VoIP provider, the E911 operator will automatically receive the 911 caller's name, telephone number and street address. VoIP providers are actively working to resolve the remaining E911 issues driven by nomadic VoIP applications. To the extent the VoIP service is used by the VoIP subscriber to replace wireline service at a static address, VoIP must clearly be viewed as a direct substitute for traditional wireline service.

VIII. WHOLESALE COMPETITION.

54. Earlier in this declaration, we briefly mentioned that wholesale services are now offered by several carriers as an alternative to Qwest's wholesale services. In fact, many carriers (including several CLECs discussed earlier) now offer dark fiber, wholesale access, wholesale transport and finished telecommunications services to other telecom providers in the Minneapolis-St. Paul MSA. For example, AT&T, Covad, Eschelon, Global Crossing, Granite Telecommunications, Integra, Level 3, McLeodUSA, Time Warner Telecom, Trinsic, Verizon and XO Communications have all self-reported to the FCC that they are offering "carrier's carrier" services to other telecommunications service providers.[151] Since inter-carrier services are typically provided on a contractual basis, details of such services are difficult to obtain. However, the presence of numerous

[150] AT&T Solves VoIP's 911 Issue, USA Today, October 12, 2005. See Exhibit 6, Page 33.

[151] Telecommunications Provider Locator, Industry Analysis & Technology Division, Wireline Competition Bureau, Table 3, March 2006.